AMENDMENTS TO THE CLAIMS

Please amend claim 43, 45, 47, 49, 51, 52 and 56.

Please cancel claims 53-55.

Please add new claims 58-66.

The following listing of claims replaces all versions, and listings, of claims in this application.

Listing of Claims:

1-42. (Canceled)

43. (Currently Amended) A system for reconstructing an image, the system comprising: a controller to:

receive selected image data from an in-vivo device, wherein said selected image data has been ~~compressed~~ selected using a dilution pattern, wherein said dilution pattern is repeated in every four rows of the image, such that every second green pixel is selected from a first row, every second blue pixel is selected from a second row, and every second red pixel is selected from a third row;

pre-process the selected image data by applying error correction code, gradient evaluation, or detecting edges;

interpolate the selected image data to produce reconstructed image data, so that the reconstructed image data includes more data than selected image data; and

post-process the ~~interpolated~~ reconstructed image data by applying a median filter.

44. (Previously Presented) The system of claim 43, wherein the controller interpolates by linear interpolation, quadratic interpolation, bicubic interpolation, polynomial interpolation, or weighted average interpolation.

45. (Currently Amended) The system of claim 43, wherein the controller is to produce additional image data resulting in ~~a~~ reconstructed image data.

46. (Canceled)

47. (Currently Amended) The system of claim 43, wherein the controller is further to post-process the reconstructed image data by color suppression.

48. (Canceled)

49. (Currently Amended) The system of claim 43, wherein the controller is to generate reconstructed image data based on said selected image data.

50. (Previously Presented) The system of claim 43 wherein the controller is to receive the selected image data from a swallowable capsule.

51. (Currently Amended) The system of claim 43 comprising wherein said selected image data is produced by an in vivo imager to receive which captures a plurality of input data corresponding to an image and to produce said selected image data.

52. (Currently Amended) The system of claim 51 comprising a transmitter to transmit wherein said selected image data is transmitted from an in vivo device via a transmitter.

53-55. (Canceled)

56. (Currently Amended) The system of claim 43 wherein the dilution pattern used to compress select the selected image data is determined modified based on operating conditions of the in vivo device.

57. (Previously Presented) The system of claim 56 wherein the operating conditions are selected from a group consisting of: position of the in vivo device, pH, temperature, ambient lighting or color conditions.

58. (New) The system of claim 43 wherein said dilution pattern further comprises selecting a same amount of red pixels and blue pixels and twice that amount of green pixels.

59. (New) The system of claim 43 wherein said dilution pattern further comprises selecting every second green pixel from said second row, and selecting no pixels from a fourth row.

60. (New) The system of claim 43 wherein said dilution pattern further comprises selecting every second red pixel from a fourth row, such that a same amount of green pixels and blue pixels are selected and twice that amount of red pixels are selected.

61. (New) A system for dilution of in vivo image data for subsequent reconstruction thereof, the system comprising: a data compression module to:

receive image data acquired by an in-vivo device; and

compress said image data using a dilution pattern, wherein said dilution pattern is repeated in every four rows of the image data, such that every second green pixel is selected from a first row, every second blue pixel is selected from a second row, and every second red pixel is selected from a third row.

62. (New) The system of claim 61 wherein said data compression module is implemented as part of a microprocessor.

63. (New) The system of claim 61 wherein said data compression module is implemented as part of a transmitter in said in vivo device.

64. (New) The system of claim 61 wherein said dilution pattern further comprises selecting a same amount of red pixels and blue pixels and twice that amount of green pixels.

65. (New) The system of claim 61 wherein said dilution pattern further comprises selecting every second green pixel from said second row, and selecting no pixels from a fourth row.

66. (New) The system of claim 61 wherein said dilution pattern further comprises selecting every second red pixel from a fourth row, such that a same amount of green pixels and blue pixels are selected and twice that amount of red pixels are selected.